

1. A method for detecting microorganisms comprising:
placing a sample to be tested in a medium, the medium
containing antibodies specific for binding to a microorganism to
form an antigen to antibody complex;
contacting the medium with a beam of light energy, some of the
energy emitted from the medium as a lower resonance enhanced Raman
backscattered energy; and
detecting the presence or absence of the microorganism based
on a characteristic spectral peak of said microorganism.

A B 2. The method of claim 1 wherein the medium is a fluid
medium and the microorganism is a bacterium.

3. The method of claim 2 wherein the light energy is
ultraviolet light.

4. The method of claim 3 wherein the ultraviolet light is in
the range of 242 to 257 nm.

5. The method of claims 3 or 4 wherein the medium is a
liquid medium further comprising:

removing the antigen antibody complex from the liquid medium;
and
detecting subsequently the presence or absence of the
microorganism.

6. A system for detecting the presence or absence of a microorganism comprising:

contacting a medium containing antibodies specific for binding to a microorganism with a beam of light energy; and means for detecting the presence or absence of the microorganism in the presence of an excess of antibodies.

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A¹

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B²

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B¹